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Anatomy of Osmundites.—SCHUSTER¹⁷ has described the anatomical structure of a new species of *Osmundites* (*O. Carneri*) from Paraguay. He considers it an "ectophloic siphonostele," and calls especial attention to the absence of leaf gaps. A ring of xylem, unbroken but very thin opposite the wide "rays," is figured in a text diagram, but it is noteworthy that the attachment of leaf trace to stele has not been drawn. The plates of photographs, however, show broad and indisputable leaf gaps formed by the departure of leaf traces which are thin and arched from the very first. The preservation of tissues other than the xylem is not good enough to determine the presence or absence of internal phloem, but the wide gaps and other striking resemblances between the stele of this species and that of *Osmundites skidegatensis*, where internal as well as external phloem is well developed, would lead one to suspect very strongly the existence of this tissue in *O. Carneri*. There is doubt as to the horizon of the new species, but its author places it as probably Tertiary, though possibly Jurassic. Species of *Osmundites* have now been described from the continent of Europe, western Canada, Paraguay, South Africa, and New Zealand.—E. W. SINNOTT.

Respiration and wounding.—SCHNEIDER-ORELLI¹⁸ finds that wounding apples, pears, and potatoes which are no longer capable of forming wound periderm increases the amount of carbon dioxide given off by such fruits and tubers above that normally given off. He concludes, therefore, that the increased respiration is due to wounding alone, and not to renewed cell division which follows wounding in tissues which are still capable of growth. An attempt to apply the same idea to the study of the stimulation of respiration due to infection by fungi gave no results, since it was impossible to separate the carbon dioxide produced by the fungus from that produced by the host.—H. HASSELBRING.

A glucoside.—Saponarin, a glucoside of the formula $C_{21}H_{24}O_{12}$, has been found in 24 species of phanerogams (8 families) out of more than 1300 species examined. It is contained in the epidermis of leaves and stains blue to violet with IKI. MOLISCH¹⁹ now finds it in *Madotheca platyphylla*, the only liverwort out of 36 species examined. Its peculiar distribution in the plant kingdom and its liability of being mistaken for soluble starch make it of interest. It should be stated that the writer's microchemical methods do not prove that this substance is saponarin.—WILLIAM CROCKER.

¹⁷ SCHUSTER, J., *Osmundites* von Sierra Villa Rica in Paraguay. Ber. Deutsch. Bot. Gesells. **29**:534-540. pls. 2. 1911.

¹⁸ SCHNEIDER-ORELLI, O., Versuche über Wundreiz und Wundverschluss an Pflanzenorganen. Centralbl. Bakt. II. **30**:420-429. 1911.

¹⁹ MOLISCH, HANS, Über das Vorkommen von Saponarin bei einen Lebermoos (*Madotheca platyphylla*). Ber. Deutsch. Bot. Gesells. **29**:487-491. 1911.